

Title (en)
METHOD FOR MANUFACTURING STATOR FOR ROTARY ELECTRIC MACHINE

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES STATORS FÜR EINE ELEKTRISCHE DREHMASCHINE

Title (fr)
PROCÉDÉ DE FABRICATION DE STATOR POUR MACHINE ÉLECTRIQUE ROTATIVE

Publication
EP 4266562 A4 20240619 (EN)

Application
EP 22771564 A 20220318

Priority

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Abstract (en)
[origin: EP4266562A1] A method for manufacturing a stator for a rotating electrical machine is disclosed that includes: an installation step of installing coil pieces with a rectangular cross section for a stator coil in a stator core; and a joining step of joining ends of the coil pieces by laser welding after the installation step. The joining step includes a setting step of bringing the ends into contact with each other in a radial direction in such a manner that the ends cross over each other in an X-shape as viewed in the radial direction, and a radiation step of applying a laser beam with a wavelength of 0.6 μm or less in an axial direction toward a C-shaped side, as viewed in the radial direction, of a contact surface between the ends after the setting step. Part of the C-shaped side and part of an axially outer non-contact surface that is continuous with the contact surface between the ends are melted in the radiation step.

IPC 8 full level
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Citation (search report)

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- [A] WO 2018072163 A1 20180426 - GM GLOBAL TECH OPERATIONS LLC [US], et al
- [Y] HENRIKKI PANTSAR: "Laser welding at the green wavelength benefits electrified mobility applications | Laser Focus World", 1 January 2019 (2019-01-01), pages 1 - 13, XP093160583, Retrieved from the Internet <URL:https://www.laserfocusworld.com/industrial-laser-solutions/article/14215476/laser-welding-at-the-green-wavelength-benefits-electrified-mobility-applications> [retrieved on 20240510]
- See also references of WO 2022196822A1

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